# Manuel d'Installation et de Maintenance

# Centrale Double flux DFS, DFS+ et DFST

GB *Assembly Instructions DFS, DFS+ and DFST heat recovery unit*

D *Montageanleitung zentrales Lüftungssystem mit Wärmerückgewinnnung DFS, DFS+ und DFST*

I *Istruzioni di montaggio Centrale doppio flusso DFS, DFS+ e DFST*

E *Manual del operador Central doble flujo DFS, DFS+ y DFST*

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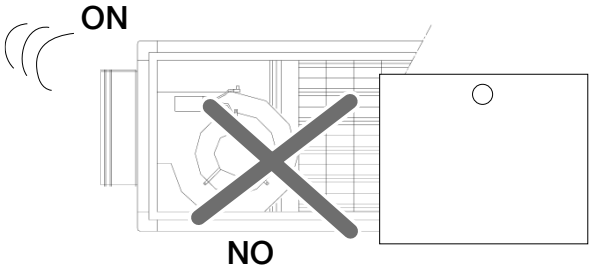
# 1. MISE EN GARDE

GB *Warnings* D *Warnhinweise*
I *Avvertenze* E *Advertencia*

1




**En cas d'intervention, couper l'alimentation**

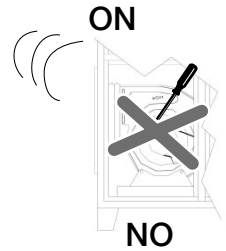
GB *Switch off power supply when carrying out work.*

D *Vor jedem Eingriff ist die Anlage Spannungsfrei zu machen*

I *Interrompere l'alimentazione prima di effettuare qualunque intervento.*

E *En caso de intervenciòn, cortar la alimentaciòn.*

2




**Ne laisser aucun corps étranger dans le caisson**

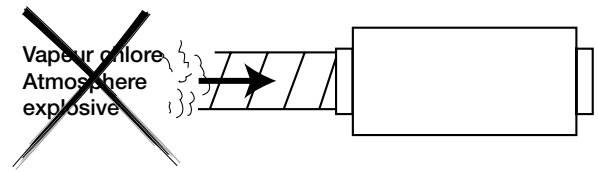
GB *Do not leave any foreign body in the casing*

D *Keine Fremdkörper im Gehäuse lassen*

I *Non lasciare corpi estranei nel cassone*

E *No dejar ningún cuerpo extraño en la caja*

3




**Ni vapeur de chlore, ni atmosphère explosive**

GB *No chlorinated vapour nor explosive atmosphere.*

D *Keine Chlordämpfe oder brennbaren Gase.*

I *Né vapori di cloro, né atmosfera esplosiva.*

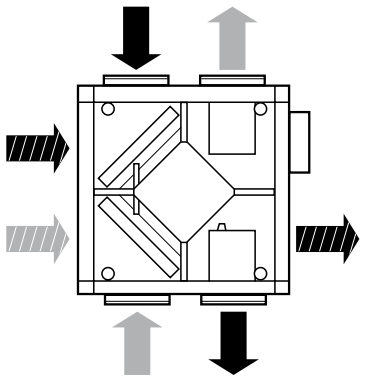
E *Ni vapor de cloro ni atmósfera explosiva.*

# 2. IDENTIFICATION

GB *Identification* D *Kennzeichnung*
I *Identificazione* E *Identificación*

Arrangements possibles et réalisables sur site.

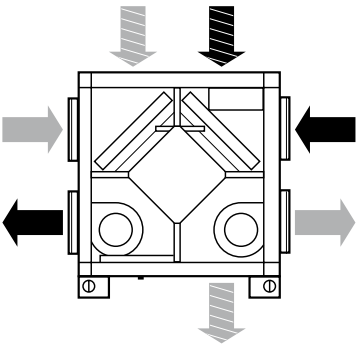
A



**DFS H vue de dessus**

GB *DFS 300/700/1500/3000/4000/5000 (horizontal)*
D *DFS 300/700/1500/3000/4000/5000 (horizontal)*
I *DFS 300/700/1500/3000/4000/5000 (orizzontale)*
E *DFS 300/700/1500/3000/4000/5000 (horizontal)*

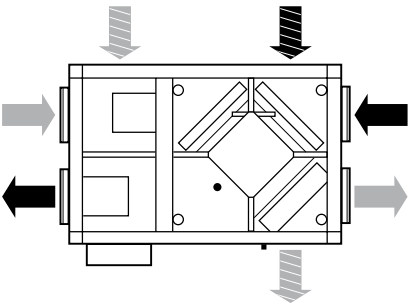
B



**DFS V vue de face**

GB *DFS 300/700/1500/3000/4000/5000 (vertical)*
D *DFS 300/700/1500/3000/4000/5000 (vertikal)*
I *DFS 300/700/1500/3000/4000/5000 (verticale)*
E *DFS 300/700/1500/3000/4000/5000 (vertical)*

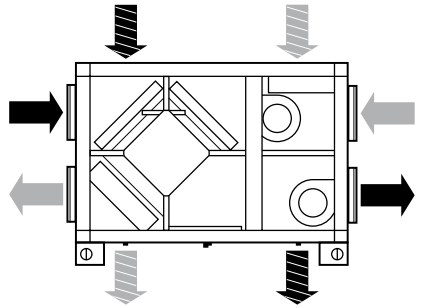
A



**DFS+ H vue de dessus**

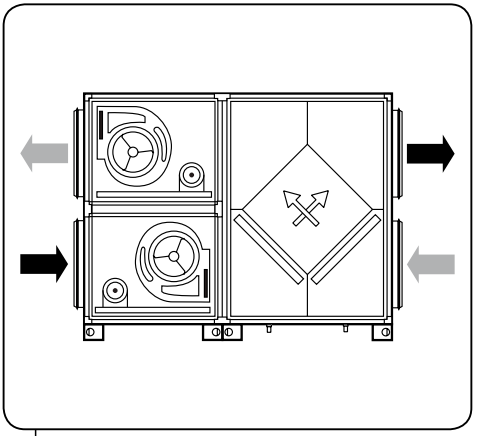
GB *DFS+ 300/700/1500/3000/4000/5000 (horizontal)*
D *DFS+ 300/700/1500/3000/4000/5000 (horizontal)*
I *DFS+ 300/700/1500/3000/4000/5000 (orizzontale)*
E *DFS+ 300/700/1500/3000/4000/5000 (horizontal)*

B



**DFS+ V vue de face**

GB *DFS+ 300/700/1500/3000/4000/5000 (vertical)*
D *DFS+ 300/700/1500/3000/4000/5000 (vertikal)*
I *DFS+ 300/700/1500/3000/4000/5000 (verticale)*
E *DFS+ 300/700/1500/3000/4000/5000 (vertical)*



**DFST vue de face**

GB *DFST 4500/8000/1200 (vertical)*
D *DFST 4500/8000/1200 (vertikal)*
I *DFST 4500/8000/1200 (verticale)*
E *DFST 4500/8000/1200 (vertical)*

**Piquage de soufflage standard**

GB *Standard position of the supply pipe connection*
D *Standardanschluss Zuluft/Außenluft*
I *Attacco di immissione standard*
E *Boca de impulsión estándar*

**Piquage de reprise standard**

GB *Standard position of the exhaust pipe connection*
D *Standardanschluss Abluft/Fortluft*
I *Attacco di ripresa standard*
E *Boca de extracción estándar*

**Autre piquage de souflage possible**

GB *Others positions of the supply pipe connection*
D *Möglicher Anschluss Zuluft/Außenluft*
I *Altri attacchi di immissione possibili*
E *Otras bocas de impulsión posibles*

**Autre piquage d'extraction possible**

GB *Others positions of the exhaust pipe connection*
D *Möglicher Anschluss Abluft/Fortluft*
I *Altri attacchi di ripresa possibili*
E *Otras bocas de extracción posibles*

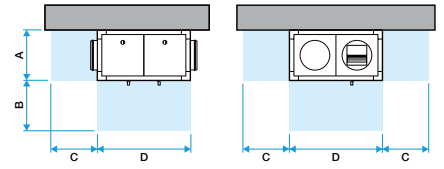
# 3. INSTALLATION

GB *Installation* D *Einbaumaße*
I *Installazione* E *Instalación*

## Espace devant resté libre pour la maintenance des centrales

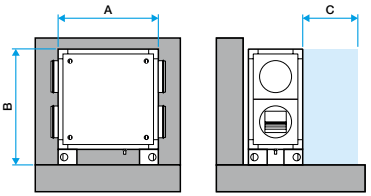
GB *Open space required for service of the unit*
I *Lo spazio davanti rimane libero per la manutenzione delle centrali*
D *Freiraum vor dem Gerät für Wartungsarbeiten sicherstellen*
E *Espacio libre necesario para el mantenimiento de las centrales*

### DFS H



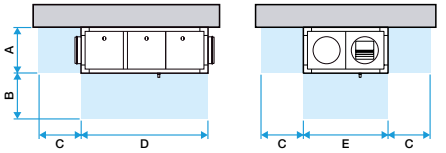

| Modèle | A (mm) | B (mm) | C (mm) | D (mm) |
|---|---|---|---|---|
| DFS+ 300 H | 345 | 400 | 400 | 640 |
| DFS+ 700 H | 360 | 400 | 400 | 820 |
| DFS+ 1500 H | 535 | 600 | 400 | 1040 |
| DFS+ 3000 H | 630 | 700 | 500 | 1270 |
| DFS+ 4000 H | 855 | 900 | 500 | 1300 |
| DFS+ 5000 H | 855 | 900 | 500 | 1300 |

### DFS V



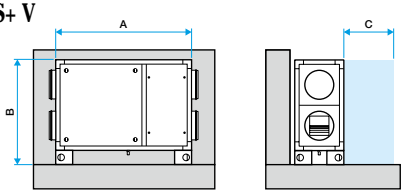

| Modèle | A (mm) | B (mm) | C (mm) |
|---|---|---|---|
| DFS+ 300 V | 640 | 740 | 400 |
| DFS+ 700 V | 820 | 920 | 400 |
| DFS+ 1500 V | 1040 | 1140 | 600 |
| DFS+ 3000 V | 1270 | 1370 | 700 |
| DFS+ 4000 V | 1300 | 1300 | 900 |
| DFS+ 5000 V | 1300 | 1300 | 900 |

### DFS+ H



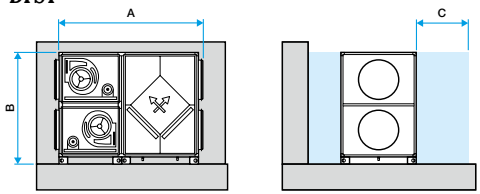

| Modèle | A (mm) | B (mm) | C (mm) | D (mm) | E (mm) |
|---|---|---|---|---|---|
| DFS+ 300 H | 345 | 400 | 400 | 960 | 640 |
| DFS+ 700 H | 360 | 400 | 400 | 1230 | 820 |
| DFS+ 1500 H | 535 | 600 | 400 | 1560 | 1040 |
| DFS+ 3000 H | 630 | 700 | 500 | 1905 | 1270 |
| DFS+ 4000 H | 855 | 900 | 500 | 1550 | 1300 |
| DFS+ 5000 H | 855 | 900 | 500 | 1550 | 1300 |

### DFS+ V




| Modèle | A (mm) | B (mm) | C (mm) |
|---|---|---|---|
| DFS+ 300 V | 960 | 740 | 400 |
| DFS+ 700 V | 1230 | 920 | 400 |
| DFS+ 1500 V | 1560 | 1140 | 600 |
| DFS+ 3000 V | 1900 | 1370 | 700 |
| DFS+ 4000 V | 1550 | 1300 | 900 |
| DFS+ 5000 V | 1550 | 1300 | 900 |

### DFST

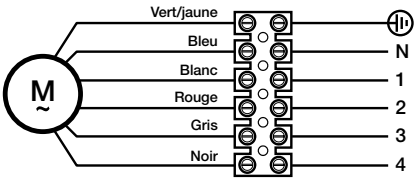



| Modèle | A (mm) | B (mm) | C (mm) |
|---|---|---|---|
| DFST 4500 | 960 | 740 | 400 |
| DFST 8000 | 1230 | 920 | 400 |

# 4. MISE EN ROUTE : raccordement électrique

GB ***Start-up:*** *electrical connections* D *Elektrischer Anschluss*
I ***Accensione:*** *raccordo elettrico* E ***Puesta en funcionamiento:*** *conexión eléctrica*

Raccordement électrique sur centrale sans régulation. Pour les centrales équipées d'une régulation type Pilot BA ou autre, se référer au schéma de câblage livré avec la centrale.



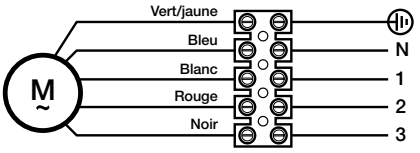

**Détail du bornier électrique DFS/DFS+ 300/700 (4 vitesses, 230V - Mono - 50Hz)**

GB *Electrical terminal block details DFS/DFS+ 300/700 (4-speeds, 230V - Mono - 50Hz)*

D *Elektroanschluss DFS/DFS+ 300/700 (4 Drehzahlen, 230V, Wechselstrom, 50Hz)*

I *Dettaglio della morsettiera elettrica DFS/DFS+ 300/700 (4 velocità, 230V - Mono - 50Hz)*

E *Detalle del cajetín de bornes DFS/DFS+ 300/700 (4 velocidades, 230V - Mono. -50Hz).*



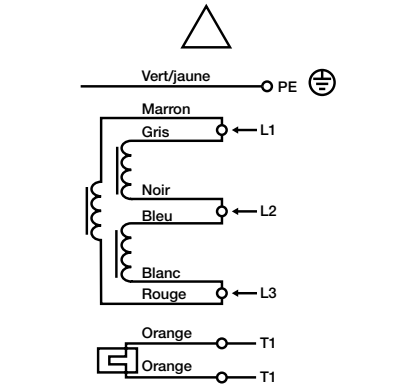

**Détail du bornier électrique DFS/DFS+ 1500/3000 (3 vitesses, 230V - Mono - 50Hz)**

GB *Electrical terminal block details DFST 1500, 3000 (3-speeds, 230V - Mono - 50Hz)*

D *Elektroanschluss DFST 1500, 3000 (3 Drehzahlen, 230V, Wechselstrom, 50Hz)*

I *Dettaglio della morsettiera elettrica DFST 1500, 3000 (3 velocità, 230V - Mono - 50Hz)*

E *Detalle del cajetín de bornes DFST 1500, 3000 (3 velocidades, 230V - Mono. -50Hz)*




**Détail du bornier électrique DFS/DFS+ 4000 (1 vitesse, 400V - Tri - 50Hz)**

GB *Electrical terminal block details DFS/DFS+ 4000 (1-speed, 400V - Tri - 50Hz)*

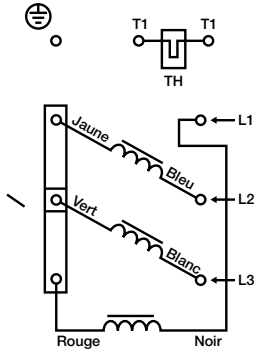
D *Elektroanschluss DFS/DFS+ 4000 (1 Drehzahl, 400V, Drehstrom, 50Hz)*

I *Dettaglio della morsettiera elettrica DFS/DFS+ 4000 (1 velocità, 400V - Tri - 50Hz)*

E *Detalle del cajetín de bornes DFS/DFS+ 4000 (1 velocidades, 230V - Tri. -50Hz)*

# 4. MISE EN ROUTE : raccordement électrique

GB ***Start-up:*** *electrical connections* D *Elektrischer Anschluss*
I ***Accensione:*** *raccordo elettrico* E ***Puesta en funcionamiento:*** *conexión eléctrica*



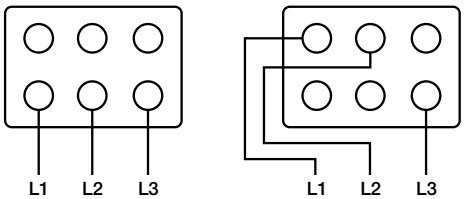

**Détail du bornier électrique DFS/DFS+ 5000 (1 vitesse, 400V - Tri - 50Hz)**

GB *Electrical terminal block details DFS/DFS+ 5000 (1-speed, 400V - Tri - 50Hz)*

D *Elektroanschluss DFS/DFS+ 5000 (1 Drehzahl, 400V, Drehstrom, 50Hz)*

I *Dettaglio della morsettiera elettrica DFS/DFS+ 5000 (1 velocità, 400V - Tri - 50Hz)*

E *Detalle del cajetín de bornes DFS/DFS+ 5000 (1 velocidades, 230V - Tri. -50Hz)*




**Détail du bornier électrique DFST 4500, 8000, 12000 (2 vitesses, 400V - Tri - 50Hz)**

GB *Electrical terminal block details DFST 4500, 8000, 12000 (2-speeds, 400V – Tri – 50Hz)*

D *Elektroanschluss DFST 4500, 8000, 12000 (2 Drehzahlen, 400V, Drehstrom, 50Hz)*

I *Dettaglio della morsettiera elettrica DFST 4500, 8000, 12000 (2 velocità, 400V - Tri - 50Hz)*

E *Detalle del cajetín de bornes DFST 4500, 8000, 12000 (2 velocidades, 230V - Tri. -50Hz)*

**DFST 4500, 8000, 12000**
**Prévoir les presses étoupes pour le passage des câbles électriques, moteur triphasé 2 vitesses, alimentation électrique 400 V - 50 Hz.**

GB *DFST 4500, 8000, 12000*
*Anticipate the need for cable glands for the passage of the electrical cabling,*
*Three-phase motor 2-speed,*
*Electrical supply 400V – 50 Hz*

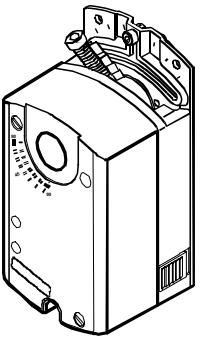
D *DFST 4500, 8000, 12000*
*Kabelverschraubung für die Durchführung der Elektrokabel vorsehen*
*Drehstrommotor ; 2 Drehzahlen,*
*Stromversorgung 400V – 50 Hz*

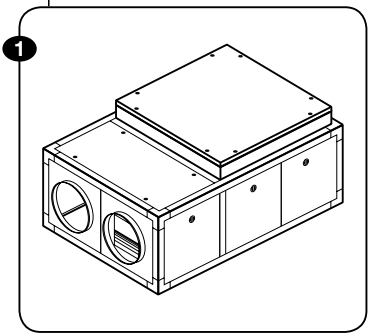
I *DFST 4500, 8000, 12000*
*Prevedere dei passacavi per il passaggio dei cavi elettrici,*
*Motore trifase 2 velocità,*
*Alimentazione elettrica 400 V – 50 Hz*

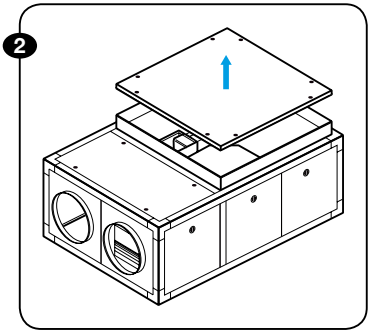
E *DFST 4500, 8000, 12000*
*Prever los prensaestopas para el paso de cables eléctricos,*
*Motor trifásico 2 velocidades,*
*Alimentación eléctrica 400 V - 50 Hz*

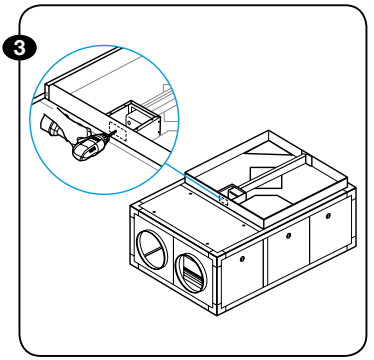
**Raccordement électrique du Bypass de DFS, DFS+, DFST**

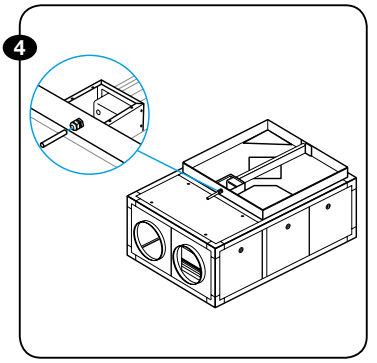
GB *Electrical wiring of Bypass (DFS, DFS+, DFST)*
D *Elektrischer Anschluss des Bypass DFS, DFS+, DFST*
I *Raccordi elettrici del Bypass di DFS, DFS+, DFST*
E *Conexión eléctrica del Bypass para DFS, DFS+, DFST*

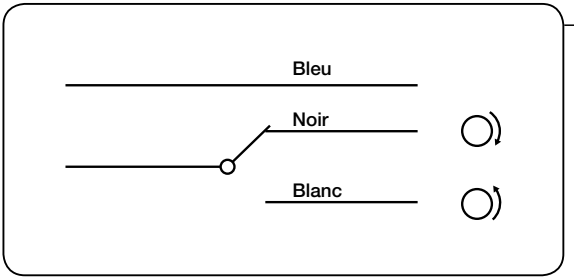





**Détail du bornier électrique Bypass DFS, DFS+, DFST**

GB *Electrical terminal block details of Bypass (DFS, DFS+, DFST)*
D *Elektroanschluß Bypass DFS, DFS+, DFST*
I *Dettagli del terminale elettrico Bypass DFS, DFS+, DFST*
E *Detalle de la regleta de terminales del Bypass DFS, DFS+, DFST*

# 5. ENTRETIEN ET MAINTENANCE

GB *Cleaning and Maintenance* D *Wartung / Instandhaltung*
I *Pulizia e manutenzione* E *Mantenimiento*

**Un entretien régulier des centrales DFS/ DFS+ et DFST** leur assure un fonctionnement optimal. Tous les éléments nécessitant une intervention (filtres, ventilateurs, échangeur) sont facilement accessibles par des panneaux démontables équipés de poignées. Les cassettes filtres sont montées sur glissière pour une intervention rapide et sans outils.

GB ***Regular maintenance of the DFE+ units ensures optimum performance**. All components requiring intervention (filters, fans, heat exchanger) can be easily accessed via removable panels with handles. The filter cassettes are mounted on a side rail for quick access that does not require the use of tools.*

D ***Eine regelmäßige Wartung der Geräte DFS /DFS+ / DFST** ermöglicht die optimale Leistung und lange Lebensdauer. Alle Bauteile (Filter, Ventilatoren, Wärmetauscher) sind leicht zugänglich. Abnehmbare Platten mit Griffen ermöglichen eine einfache Wartung.*

I ***Una manutenzione regolare delle centrali DFS/ DFS+ e DFST** assicura un funzionamento ottimale. Tutti gli elementi necessitano un intervento (filtri, ventilatori, scambiatore) sono facilmente accessibili da pannelli smontabili equipaggiati di una maniglia per l'apertura. Le cassette filtro sono montate su un'apposita corsia scorrevole che permette un intervento rapido e senza attrezzi.*

E ***Un mantenimiento regular de las centrales DFS/DFS+ y DFST** garantiza su funcionamiento óptimo. Todos los elementos que requieren una intervención (filtros, ventiladores, intercambiador) son fácilmente accesibles mediante paneles desmontables equipados de empuñaduras. Los casetes filtros están montados sobre raíl para una intervención rápida y sin herramientas.*

| Désignation | Code |
|---|---|
| **FILTRES DE RECHANGE*** | |
| **Filtre G4 DFS+/DFS 300** | 11058314 |
| **Filtre G4 DFS+/DFS 700** | 11058315 |
| **Filtre G4 DFS+/DFS 1500** | 11058316 |
| **Filtre G4 DFS+/DFS 3000** | 11058324 |
| **Filtre G4 DFS+/DFS 4000 et 5000** | 11058326 |
| **Filtre F7 DFS+/DFS 300** | 11058392 |
| **Filtre F7 DFS+/DFS 700** | 11058393 |
| **Filtre F7 DFS+/DFS 1500** | 11058394 |
| **Filtre F7 DFS+/DFS 3000** | 11058395 |
| **Filtre F7 DFS+/DFS 4000 et 5000** | 11058396 |
| **FILTRES DE RECHANGE* (2 filtres de chaque type par centrale)** | |
| **Filtre G4 DFST 4500** | 11058326 |
| **Filtre G4 DFST 8000** | 11058327 |
| **Filtre G4 DFST 12000** | 11059295 |
| **Filtre F7 DFST 4500** | 11058396 |
| **Filtre F7 DFST 8000** | 11058395 |
| **Filtre F7 DFST 12000** | 11059296 |

* Filtres G4 et F7 selon norme EN 779 – 2002
Cadre en acier galvanisé
Média de filtration F7 en propylène avec faible perte de charge

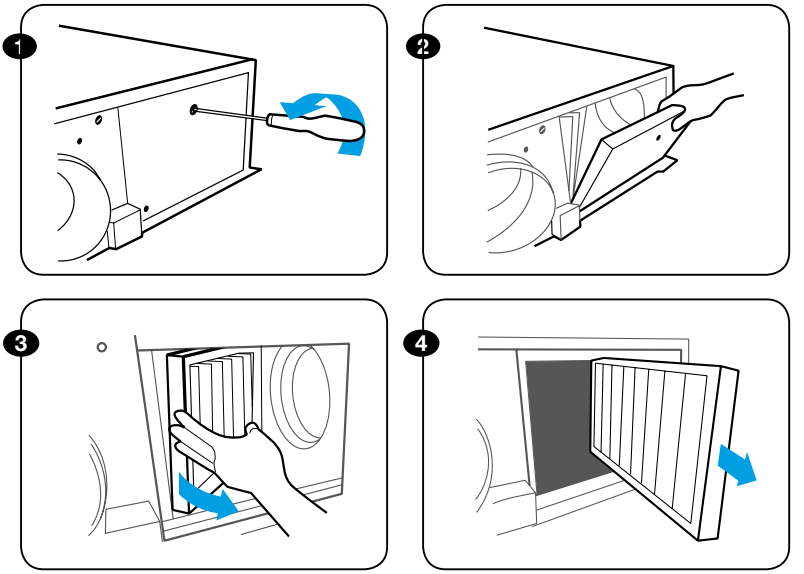
| Type | Dimensions |
|---|---|
| **Filtres F7 & G4 DFS/DFS +300** | 200 x 230 x 48 |
| **Filtres F7 & G4 DFS/DFS +700** | 250 x 400 x 48 |
| **Filtres F7 & G4 DFS/DFS +1500** | 430 x 580 x 48 |
| **Filtres F7 & G4 DFS/DFS +3000** | 500 x 625 x 48 |
| **Filtres F7 & G4 DFS/DFS +4000** | 400 x 500 x 48 |
| **Filtres F7 & G4 DFS/DFS +5000** | 400 x 500 x 48 |

| Type | Filtres/centrale | Dimensions |
|---|---|---|
| **Filtres F7 & G4 DFST 4500** | 2 | 400 x 500 x 48 |
| **Filtres F7 & G4 DFST 8000** | 2 | 500 x 625 x 48 |
| **Filtres F7 & G4 DFST 1200** | 2 | 592 x 592 x 48 |

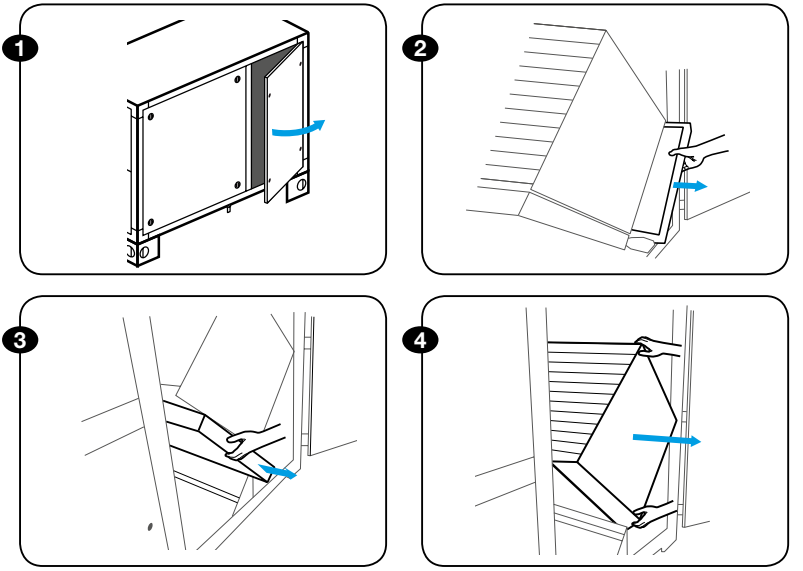
## Maintenance des filtres, de l'échangeur et des moteur

GB *Maintenance of filters, heat exchanger and fans*
I *Manutenzione dei filtri, del recuperatore e dei motori*
D *Wartung der Filter, des Wärmetauschers und der Ventilatoren*
E *Mantenimiento de los filtros, intercambiador y motores*

### DFS et DFS+




### DFST



# 6. RÉCOLTE DES CONDENSATS

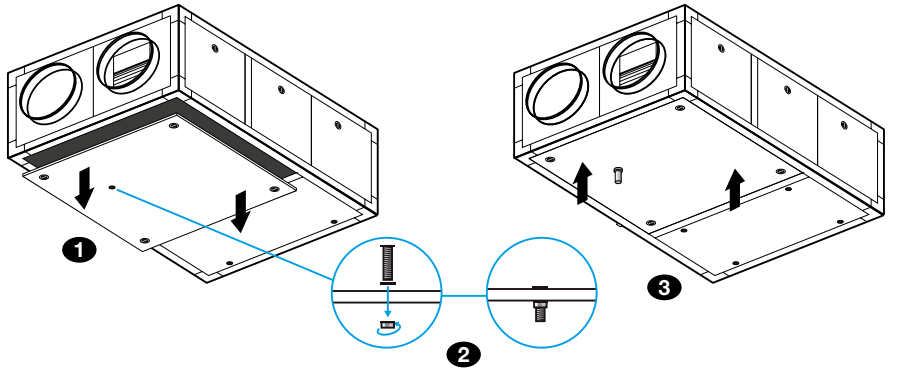
GB *Condensate drain* D *Kondensatablauf*
I *Raccolta del condensato* E *Recogida de condensados*

## Pour DFS et DFS+ (version horizontale)

GB *For DFS and DFS+ (horizontal configuration)* D *Für DFS und DFS+ (horizontale Ausführung)*
I *Per DFS e DFS + (versione orizzontale)* E *Para DFS y DFS+ (versión horizontal)*

Mise en place du système d'évacuation des condensats des centrales

GB *Mounting operations for condensate drain*
D *Anschluss des Kondensatablaufes*
I *Installazione del sistema di evacuazione delle condense delle centrali*
E *Colocación del sistema de evacuación de condensados de las centrales*




1. Ouvrir la porte d'inspection

GB *Open inspection panel*
D *Öffnen der Inspektionsöffnung*
I *Aprire la porta d'ispezione*
E *Abrir el panel de registro*

2. Introduire l'évacuateur de condensats dans le trou en ayant préalablement placer le joint, puis visser l'écrou

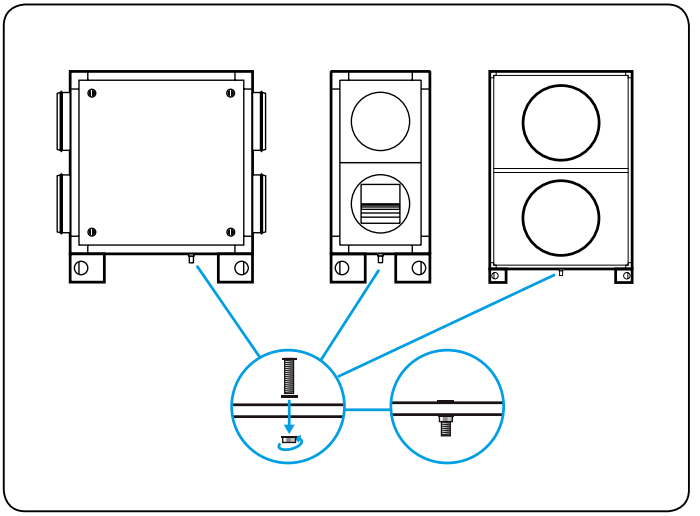
GB *Position the washer, insert the condensate drain into hole and screw the unit*
I *Introdurre l'evacuatore di condensa nel foro, avendo già messo il sigillo, quindi avvitare il dado.*
D *Montieren Sie den Kondensatablauf an der dafür vorgesehen Stelle. Wichtig: Dichtung einlegen!*
E *Introducir el evacuador de condensados en el orificio habiendo colocado previamente la junta, luego atornillar la tuerca*

3. Fermer la porte d'inspection

GB *Open inspection panel*
D *Montieren Sie die Inspektionsöffnung wieder*
I *Chiudere la porta d'ispezione*
E *Cerrar el panel de registro*

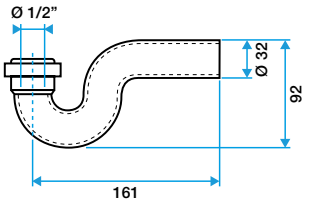
## Pour DFS, DFS+ et DFST (version verticale)

GB *For DFS, DFS+ and DFST (vertical configuration)*
I *Per DFS, DFS+ e DFST (versione verticale)*
D *Für DFS, DFS+ und DFST (vertikale Ausführung)*
E *Para DFS, DFS+ y DFST (versión vertical)*



Siphon pour DFS,DFS+ et DFST disponible en accessoires

GB *Available siphon for DFS, DFS+ and DFST*
D *Verfügarer Siphon für DFS, DFS+ und DFST*
I *Sifone per DFS, DFS+ e DFST disponibile come accessorio*
E *Sifón para DFS, DFS+ y DFST disponible como accesorio*



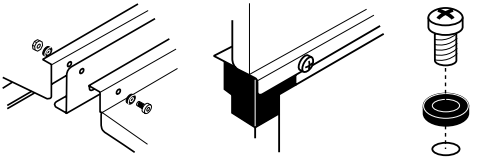
# 7. INSTALLATION PROTECTION EXTÉRIEURE

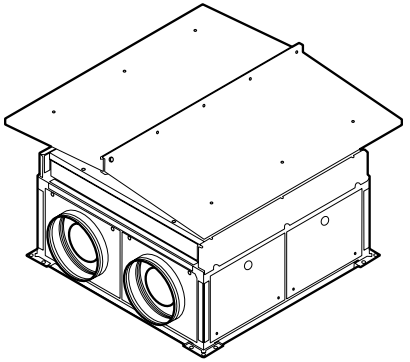
**GB** *Roof installation*
**I** *Installazione protezione esterna*
**D** *Dachmontage bei Außenaufstellung*
**E** *Instalación protección exterior*

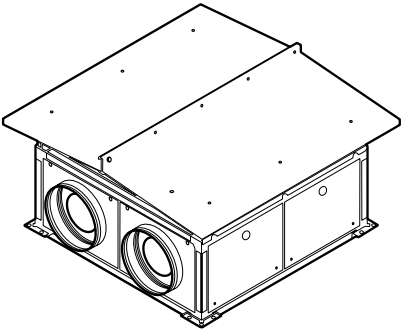
**DFS / DFS+**

DFS et DFS+ horizontale avec bypass

**GB** *DFS and DFS+ horizontal with bypass*
**D** *DFS und DFS+ horizontal mit bypass*
**I** *DFS e DFS+ orizzontale con bypass*
**E** *DFS y DFS+ horizontal con bypass*

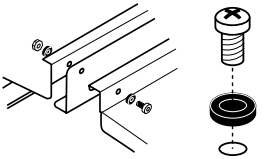


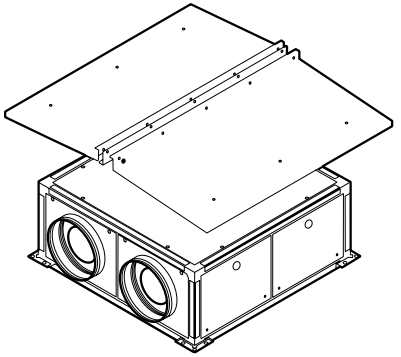


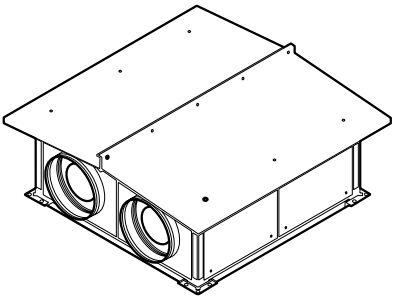


DFS et DFS+ horizontale sans bypass

**GB** *DFS and DFS+ horizontal without bypass*
**D** *DFS und DFS+ horizontal ohne bypass*
**I** *DFS e DFS+ orizzontale senza bypass*
**E** *DFS y DFS+ horizontal sin bypass*

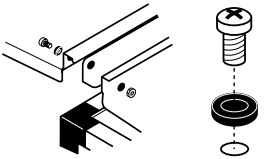


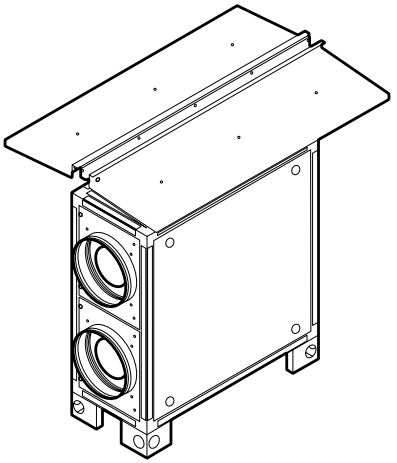


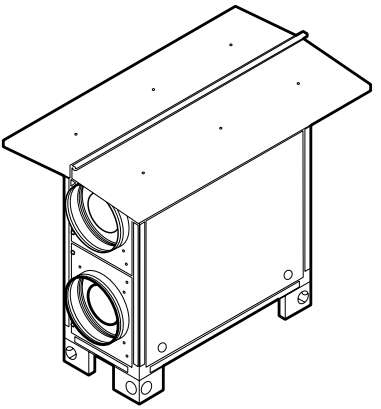


DFS et DFS+ verticale avec/sans bypass

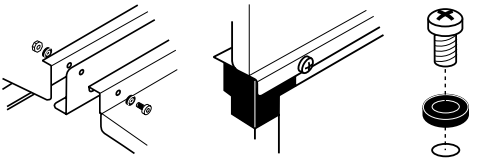
GB *DFS and DFS+ vertical with/without bypass*
D *DFS und DFS+ vertical mit/ohne bypass*
I *DFS e DFS+ verticale con/senza bypass*
E *DFS y DFS+ vertical con/sin bypass*

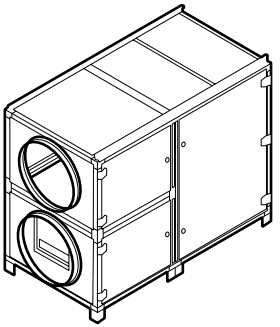


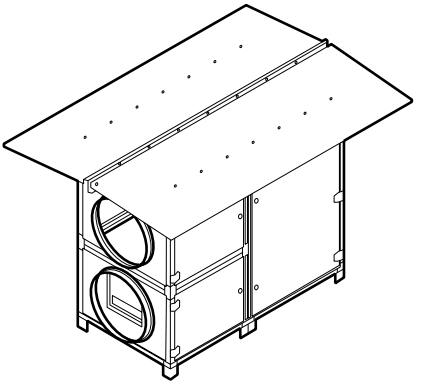




**DFST**







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